s18quiz: EXP LOG (QUIZ v258)
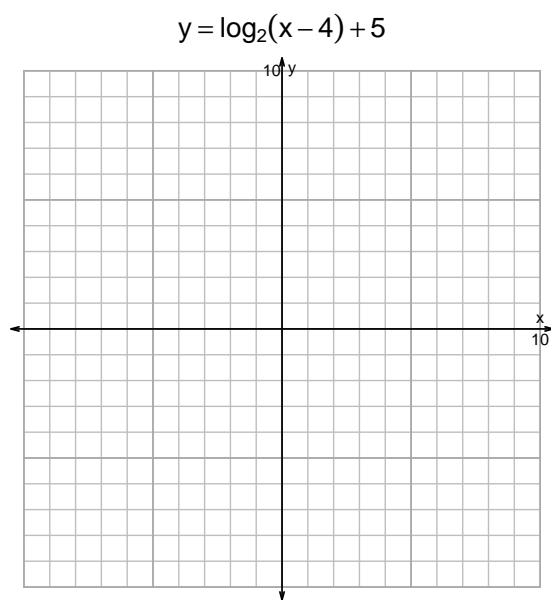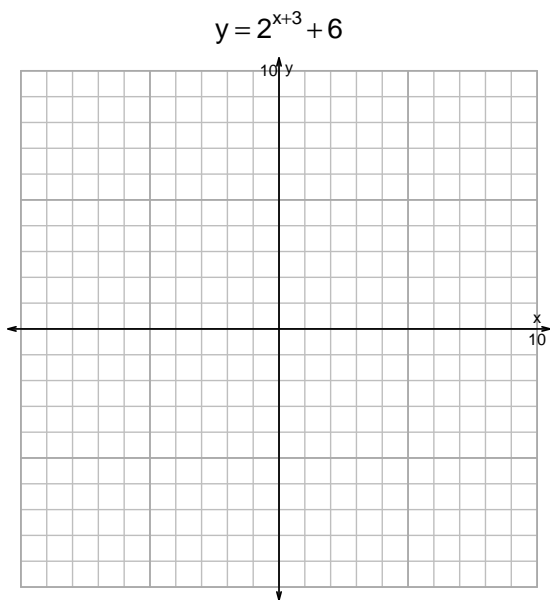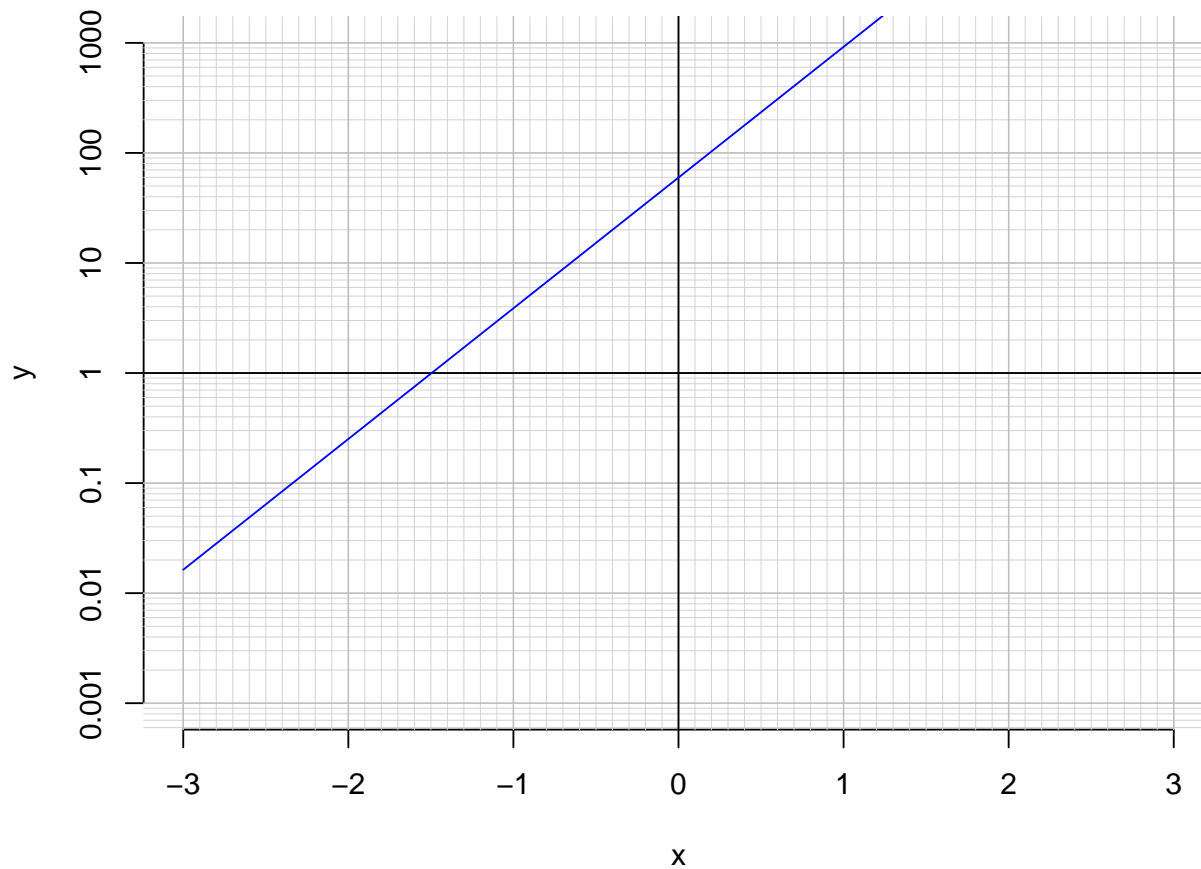
1. Graph $y = 2^{x+3} + 6$ and $y = \log_2(x-4) + 5$ on the grids below. Also, draw any asymptotes with dotted lines.

$$y = 2^{x+3} + 6$$

$$y = \log_2(x-4) + 5$$

2. Write (but do not evaluate) the solution to the equation below by writing a logarithmic expression.

$$17 = \left(\frac{4}{7}\right) \cdot 2^{-5t/3}$$

3. An exponential function $f(x) = 59.7 \cdot e^{2.73x}$ is graphed below on a semi-log plot.

a. Using the plot above, evaluate $f(0.9)$.

b. Express $f^{-1}(x)$, the inverse of f.

c. Using the plot above, evaluate $f^{-1}(20)$.